IDAHO DEPARTMENT
OF HEALTH AND WELFARE

DIVISION OF
ENVIRONMENTAL QUALITY

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900 North Skyline, Idaho Falls, ID 83402-1718, (208) 528-2650

Cecil D. Andrus, Governor

August 30, 1994

Mr. Talley Jenkins
Office of Program Execution
Environmental Restoration
850 Energy Drive
Idaho Falls, ID 83401

RE: IDHW/DEQ Informal Comments on *Sediment Layering Effect on Contaminant Transport for NonPerched Unsaturated Areas at the ICPP*

Dear Mr. Jenkins:

The Idaho Department of Health and Welfare, Division of Environmental Quality (IDHW/DEQ) has reviewed the technical memorandum *Sediment Layering Effect on Contaminant Transport for NonPerched Unsaturated Areas at the ICPP*. The memorandum was received on August 10, 1994. The attached comments are offered for your consideration. If you should have any questions, please feel free to contact us at (208) 528-2651.

Sincerely,

Scott L. Reno

Scott L. Reno
Environmental Scientist
Remediation Bureau

Attachment

cc: Shawn Rosenberger, DEQ-EIRO
Elton Modroo, DEQ-EIRO
Gerry Winter, DEQ-Boise
Linda Meyer, EPA Region X
Adam Owen, WINCO
File, DEQ-Boise

IDHW/DEQ Informal Comments on
Sediment Layering Effect on the Contaminant Transport
for NonPerched Unsaturated Areas at the ICPP

General Comment

The memo does not address the possible interaquifer transport of contaminants through vertical structures, both natural and man-made (i.e., fracturing, joint sets, and existing bore holes).

Specific Comments

1. **Section 2. Unsaturated Zone Geology**

   For the purposes of this study, it is assumed that the entire interbed sediments have similar properties to the 110 foot interbed layer. The composition of this unit should be described.

   It should be noted that the Geology "Tech Memo" (currently being drafted) shows that the average total thickness of interbed sediments and composition under the ICPP is estimated to be about 32 feet thick, consisting mainly of silt, with lesser amounts of clay, sand, and gravel partings. These findings should be incorporated into any new modeling efforts.

2. **Figure 1. Representations of the N-S Cross Section at the ICPP**

   The total interbed thickness used for the PORFLOW modeling effort appeared to be 52.2 feet, divided into an upper and a lower layer. Relogging of core holes at the ICPP shows that the total interbed thickness is 32 feet with a composition of mostly silt, with lesser amounts of sand, gravel, and clay partings.